Amendments to the Claims

1. **(Previously Presented)** A method of loss detection to determine containment losses due to seepage and leakage , said method comprising:

maintaining a constant level in at least one pool of fluid flowing between two flow regulators in an open channel,

monitoring the nett flow into said at least one pool to maintain said constant level,

determining evaporation losses, and

calculating the containment losses by subtracting the evaporation losses from the nett flow into said at least one pool.

2. **(Previously Presented)** A method of loss detection to determine containment losses due to seepage and leakage , said method comprising:

measuring the change in volume of at least one pool of fluid flowing between flow regulators in an open channel,

determining the evaporation losses, and

calculating the containment losses by subtracting the evaporation losses from the change in volume of said at least one pool.

3. **(Previously Presented)** The method of claim 1, further comprising

using first and second flow sensors to measure the flow in and out of the pool, and

using computational means communicating with said flow regulators and said flow sensors to control operation of said flow regulators and to determine said containment losses by calculating the measured flow into said at least one pool through a first of said flow regulators and subtracting the measured flow out of said at least one pool through a second of said flow regulators.

4. **(Previously Presented)** The method of claim 1, wherein the evaporation losses can be determined by the formula:

$E_{vp} = 0.01 \times P_f \times E_{pp} \times SA$,

where:

E_{vp} = the volume (Megalitres) lost to evaporation from the pool water surface for a period 'p';

P_f = pan factor (Class A);

E_{pp} = pan evaporation for period 'p' (millimetres); and

SA = surface area of the pool.

5. **(Previously Presented)** The method of claim 3, further comprising subtracting measured flow through at least one liquid metered delivery means which communicates with said computational means from the nett flow into said at least one pool.

6. **(Previously Presented)** The method of claim 3, wherein said computational means determines theft loss by treating evaporation, seepage and leakage as constants, wherein said containment losses comprise losses from theft, evaporation, seepage and leakage.

7. **(Previously Presented)** A loss detection system to determine and monitor containment losses in an open channel network, said system comprising:

first and second flow regulators to allow flow of liquid into and out of at least one pool of fluid flowing through said open channel network ,

first and second flow sensors co-operating with said flow regulators, and

computational means communicating with said flow regulators and said flow sensors to control operation of said flow regulators and to determine said containment losses by calculating the measured flow into said at least one pool through a first of said flow regulators and subtracting the measured flow out of said at least one pool through a second of said flow regulators.

8. **(Previously Presented)** The loss detection system of claim 7, further comprising at least one liquid metered delivery means which communicates with said computational means, said computational means subtracting the measured flow through said at least one liquid metered delivery means from the measured flow into said at least one pool.

9. **(Previously Presented)** The loss detection system of claim 7, wherein said computational means determines theft loss by treating evaporation, seepage and leakage as constants, wherein said containment losses comprise losses from theft, evaporation, seepage and leakage.

10. **(Previously Presented)** The loss detection system of claim 9, wherein the evaporation losses can be determined by the formula:

$E_{vp} = 0.01 \times P_f \times E_{pp} \times SA$,

where:

E_{vp} = the volume (Megalitres) lost to evaporation from the pool water surface for a period 'p';

P_f = pan factor (Class A);

E_{pp} = pan evaporation for period 'p' (millimetres); and

SA = surface area of the pool.

11. **(Previously Presented)** A method of loss detection to determine and monitor containment losses in an open channel network, said open channel network comprising first and second flow regulators to allow flow of liquid into and out of at least one pool of fluid flowing through said open channel network , first and second flow sensors co-operating with respective flow regulators, and computational means communicating with said flow regulators and said flow sensors to control operation of said flow regulators, said method comprising:

determining, using said computational means, said containment losses by calculating the measured flow into said at least one pool through said first flow regulator and subtracting the measured flow out of said at least one pool through said second regulator.

12. **(Previously Presented)** The method of claim 11, further comprising subtracting measured flow through at least one liquid metered delivery means which communicates with said computational means from the measured flow into said at least one pool through said first flow regulator.

13. **(Previously Presented)** The method of claim 11, wherein said computational means determines theft loss by treating evaporation, seepage and leakage as constants, wherein said containment losses comprise losses from theft, evaporation, seepage and leakage.

14. **(Previously Presented)** The method of claim 13, wherein the evaporation losses can be determined by the formula:

$E_{vp} = 0.01 \times P_f \times E_{pp} \times SA$,

where:

E_{vp} = the volume (Megalitres) lost to evaporation from the pool water surface for a period 'p';

P_f = pan factor (Class A);

E_{pp} = pan evaporation for period 'p' (millimetres); and

SA = surface area of the pool.

15. **(Previously Presented)** The method of claim 2, wherein the evaporation losses can be determined by the formula:

$E_{vp} = 0.01 \times P_f \times E_{pp} \times SA$,

where:

E_{vp} = the volume (Megalitres) lost to evaporation from the pool water surface for a period 'p';

P_f = pan factor (Class A);

E_{pp} = pan evaporation for period 'p' (millimetres); and

SA = surface area of the pool.

16. **(Previously Presented)** The method of claim 3, wherein the evaporation losses can be determined by the formula:

$E_{vp} = 0.01 \times P_f \times E_{pp} \times SA$,

where:

E_{vp} = the volume (Megalitres) lost to evaporation from the pool water surface for a period 'p';

P_f = pan factor (Class A);

E_{pp} = pan evaporation for period ‘p’ (millimetres); and

SA = surface area of the pool.

17. **(Previously Presented)** The method of claim 5, wherein said computational means determines theft loss by treating evaporation, seepage and leakage as constants, wherein said containment losses comprise losses from theft, evaporation, seepage and leakage.

18. **(Previously Presented)** The loss detection system of claim 8, wherein said computational means determines theft loss by treating evaporation, seepage and leakage as constants, wherein said containment losses comprise losses from theft, evaporation, seepage and leakage.

19. **(Previously Presented)** The method of claim 12, wherein said computational means determines theft loss by treating evaporation, seepage and leakage as constants, wherein said containment losses comprise losses from theft, evaporation, seepage and leakage.